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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/615,239

07/09/2003

Ryoji Hanada

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05/12/2006

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EXAMINER

FISCHER, JUSTIN R

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,239

Applicant(s)

HANADA, RYOJI

Examiner

Justin R. Fischer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 4-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over anticipated by Nagabuchi (JP 63051130). Nagabuchi is applied in the same manner as set forth in the Non-Final Rejection mailed on February 8, 2006.

Nagabuchi teaches a pneumatic tire construction formed by the following method: green tire is positioned in a shaping mold (upper/lower rim assembly), filled with a pressure fluid to expand the green tire to a dimension/form near that of the product tire, and finally cured in a vulcanizing assembly/mold. The reference further teaches that such a method reduces the conventional change in shape (of the green tire) experienced during vulcanization and thus, prevents internal strains from developing within the tire. While Nagabuchi fails to expressly define the residual strain of the cords in the innermost carcass ply, it appears that the method of Nagabuchi

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would necessarily result in a carcass cord having the claimed residual strain. This is particularly the case in view of applicant's disclosure on Page 14, Lines 3+:

To reduce only the average of residual strain of the reinforcing cords in the side region X, the dimensions of parts of the shaping surfaces 12A and 13A corresponding to the side region X are set to the dimensions of the of the molding surfaces of the vulcanization mold as closely as possible.

As noted above, the method of Nagabuchi involves the formation of a green tire having dimensions (defined by the shaping surfaces of the shaping mold) that are near to the dimensions of the product tire (defined by the surfaces of the vulcanization mold). In this instance, the dimensions of Nagabuchi are "near" another- given the disclosure noted above, the tire of Nagabuchi would have been expected to demonstrate the claimed residual strain in the innermost carcass ply. In any event, one of ordinary skill in the art at the time of the invention would have found it obvious to form a tire having the claimed residual strain in view of the disclosed method. In particular, the method of the Nagabuchi desires a reduction in internal strain, as compared to conventional tires, which appears to be consistent with the tire of the claimed invention.

Lastly, in regards to the tire structure of the claimed invention, the disclosed elements represent the fundamental components of modern day tire constructions and while not expressly disclosed by Nagabuchi, one of ordinary skill in the art at the time of the invention would have expected the tire construction of Nagabuchi to contain the recited components. Additionally, one of ordinary skill in the art at the time of the invention would have found it obvious to form a tire having the fundamental structure of the claimed invention using the method of Nagabuchi.

Response to Arguments

4. Applicant's arguments filed May 3, 2006 have been fully considered but they are not persuasive.

Applicant argues that the examiner's position (in regards to inherency) is nothing more than a personal conclusion that is unsupported by any objective evidence and the Office has failed to show that the claimed features are necessarily present. However, as detailed in the rejection above, the examiner has provided technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. In particular, Nagabuchi discloses a method of forming a tire in which the green tire has a shape that is extremely similar to that of the vulcanization mold (and thus the final tire), such that the change in shape during vulcanization is reduced. Nagabuchi suggests that such a method reduces the occurrence of internal strains and improves tire uniformity. This method is substantially equivalent to that disclosed by claimed invention. Applicant's original disclosure specifically teaches that the claimed residual strain is obtained by forming a green tire with a shape that is close in size to that of the green tire pressed against the molding surfaces of the vulcanization mold. Thus, given the extreme similarities in the methods of Nagabuchi and the claimed invention, one of ordinary skill in the art at the time of the invention would have expected the claimed residual strain to be present in the tire of Nagabuchi. Thus, contrary to the applicant's argument, the basis for inherency is not a result of a personal conclusion but rather a result of the

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similarities between the claimed method and that of Nagabuchi and applicant's recognition that the claimed residual strain is a direct product of such a method.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R. Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Justin Fischer

May 10, 2006